



Post-Closure Care Plan
OML Existing Landfill
OML Expansion Phase 1

Ottumwa-Midland Landfill

Prepared for:

Interstate Power and Light Company

Ottumwa-Midland Landfill
15300 130th Street
Ottumwa, Iowa 52501

Prepared by:

SCS ENGINEERS

2830 Dairy Drive
Madison, Wisconsin 53718-6751
(608) 224-2830

September 2016
File No. 25216110.00

Offices Nationwide
www.scsengineers.com

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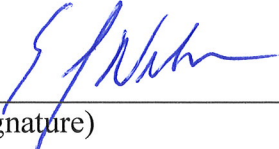
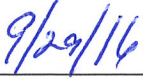
Figures

- 1 Site Location Map
- 2 Site Plan

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PE CERTIFICATION

	<p>I, Eric J. Nelson, hereby certify that this Post-Closure Care Plan meets the requirements of 40 CFR 257.104(d), was prepared by me or under my direct supervision, and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p>	
		
	<p>(signature)</p>	<p>(date)</p>
	<p>ERIC J. NELSON</p>	
	<p>(printed or typed name)</p>	
<p>License number <u>23136</u></p>		
<p>My license renewal date is <u>DECEMBER 31, 2016</u></p>		
<p>Pages or sheets covered by this seal:</p>		
<p>SEPTEMBER 2016 POST-CLOSURE CARE PLAN IPL OML</p>		

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1.0 INTRODUCTION AND PROJECT SUMMARY

On behalf of Interstate Power and Light Company (IPL), SCS Engineers (SCS) has prepared this Post-Closure Care Plan for the Ottumwa-Midland Landfill (OML) Existing Landfill and Expansion Phase 1 CCR units in accordance with 40 CFR 257.104(d) as follows.

40 CFR 257.104(d). *“Written post-closure plan – (1) Content of the plan. The owner or operator of a CCR unit must prepare a written post-closure plan that includes, as a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of this section.”*

The OML Landfill includes an active coal combustion residue (CCR) landfill, which currently consists of two CCR units:

- OML Existing Landfill
- OML Expansion Phase 1

The Existing Landfill and Expansion Phase 1 will be capped with a final cover as described in the Initial Closure Plan (SCS, August 2016).

Five future CCR units (OML Expansion Phases 2, 3, 4, 5, and 6) are permitted with the Iowa Department of Natural Resources (IDNR), but have not been developed. Future CCR units are not addressed by this plan and are not discussed further herein.

Following closure of the CCR units, IPL will conduct post-closure care in accordance with 40 CFR 257.104(b) for the 30 years required. The site location is shown on **Figure 1**. **Figure 2** shows proposed final cover grades and monitoring locations.

2.0 MONITORING AND MAINTENANCE ACTIVITIES

40 CFR 257.104(d)(1)(i). *“A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit, and the frequency at which these activities will be performed.”*

Monitoring and Maintenance Activities	Frequency
Mowing	Semi-Annually
Inspections by Owner/Operator	Monthly
Repair to Final Cover for Erosion Concerns	As needed, determined by inspection
Sedimentation Basin Cleaning	As needed, determined by inspection
Leachate Collection Line Cleaning	Annually
Environmental Monitoring (groundwater, leachate)	Semi-Annually

The owner/operator will perform monthly inspections of the landfill surface, leachate control system, and groundwater monitoring systems. If issues are noticed during the inspection, action will be taken to remedy the situation. Eroded areas will be repaired and reseeded. Repairs or replacement will be performed on groundwater monitoring system components as needed.

2.1 FINAL COVER MAINTENANCE

Mowing will be performed semi-annually during the growing season unless additional mowing is required in response to the vegetation growth rate. If eroded areas are noted during monthly inspections, IPL will repair and reseed the area.

2.2 LEACHATE COLLECTION AND REMOVAL SYSTEM MAINTENANCE

The CCR units at OML addressed by this plan are existing CCR landfills under the Federal CCR Rule (40 CFR 257, Subpart D) and are not subject to the requirements of 257.70; therefore, leachate collection and removal system maintenance is not required. However, the leachate collection and removal system will be maintained to meet state requirements.

2.3 GROUNDWATER MONITORING AND SYSTEM MAINTENANCE

Groundwater monitoring wells MW-102M, MW-122M, MW-301, MW-302, and MW-303 will be maintained and sampled semi-annually for the parameters listed in Appendix III to Part 257 and in accordance with 40 CFR 257.90-98.

3.0 POST-CLOSURE PERIOD CONTACTS

40 CFR 257.104(d)(1)(ii). *“The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure period.”*

The contact information for OML during the post-closure period is as follows:

Ottumwa Generating Station
Attn: Plant Manager
20775 Power Plant Road
Ottumwa, IA 52501
(641) 935-2903
CCRProgram@alliantenergy.com

4.0 POST-CLOSURE PERIOD SITE USE

40 CFR 257.104(d)(1)(iii). *“A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system or the function of the monitoring systems unless necessary to comply with the requirements of the subpart...”*

The final use of the OML Facility will be privately owned green space. With this use, there will be no disturbance of the final cover or any other landfill-related components.

5.0 CERTIFICATIONS

40 CFR 257.104(d)(4). *“The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written post-closure plan meets the requirements of this section.”*

Eric Nelson, PE, a licensed profession engineer in the State of Iowa, has overseen the preparation of this Post-Closure Care Plan. A certification statement is provided on **page iii** of this plan.

6.0 RECORDKEEPING AND REPORTING

40 CFR 257.104(b)(2)(iii). *“The owner or operator has completed the written post-closure plan when the plan including the certification required by paragraph (d)(4) of this section, has been placed in the facility’s operating record as required by Section 257.105(i)(4).”*

The Post-Closure Care Plan will be placed in the facility’s operating record and on Alliant Energy’s CCR Rule Compliance Data and Information website, as will all amendments, if any.

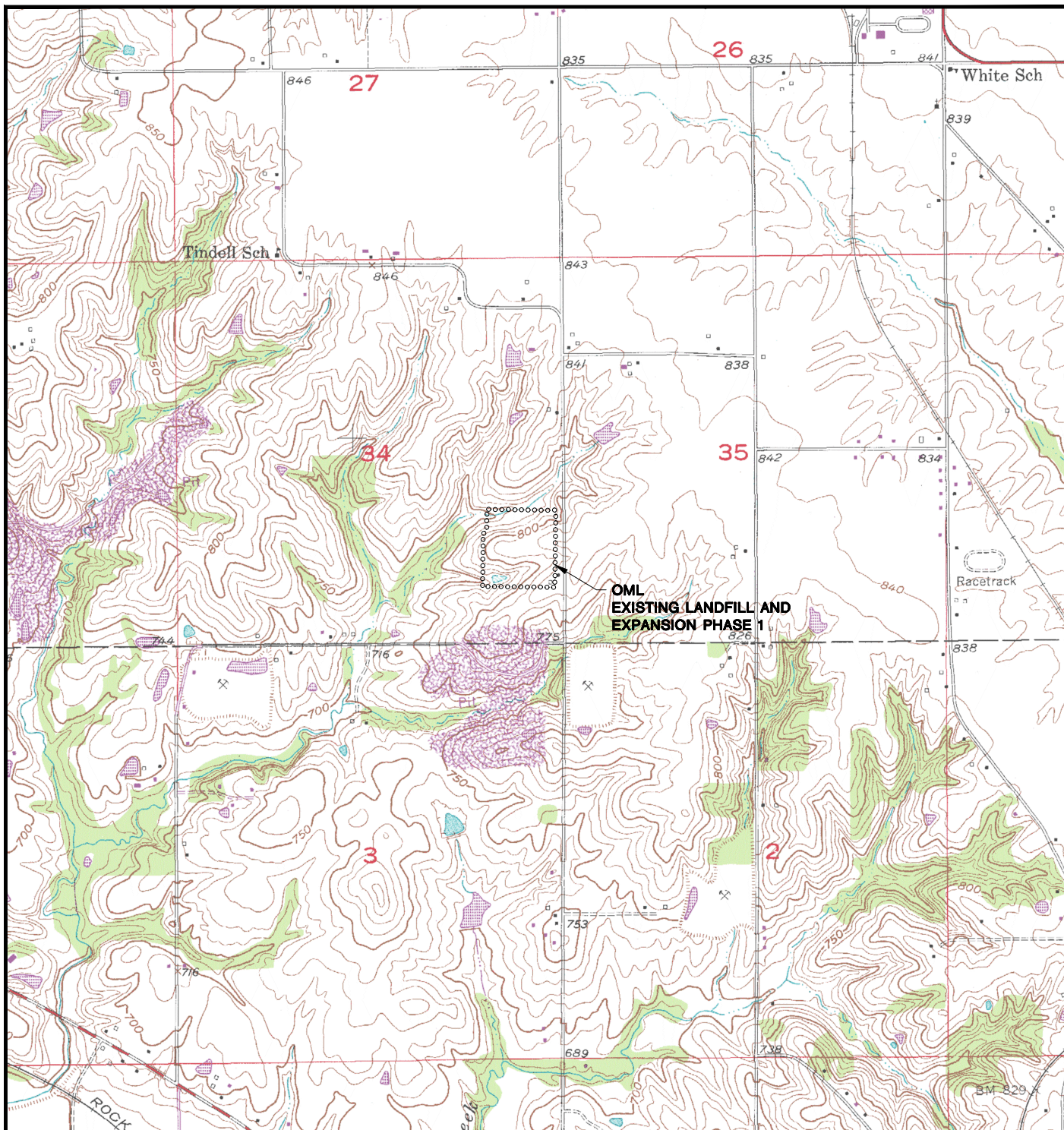
IPL will amend the Post-Closure Care Plan if there is a change in operation of the CCR unit that would affect the written Post-Closure Care Plan or if after post-closure activities have started, unexpected events cause a revision of the plan.

IPL will provide notification of completion of the post-closure care no later than 60 days following the completion of the post-closure care period. The notification will include certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with the plan. The notification will be placed in the facility’s operating record and on the website.

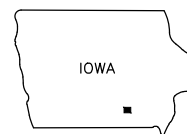
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FIGURES

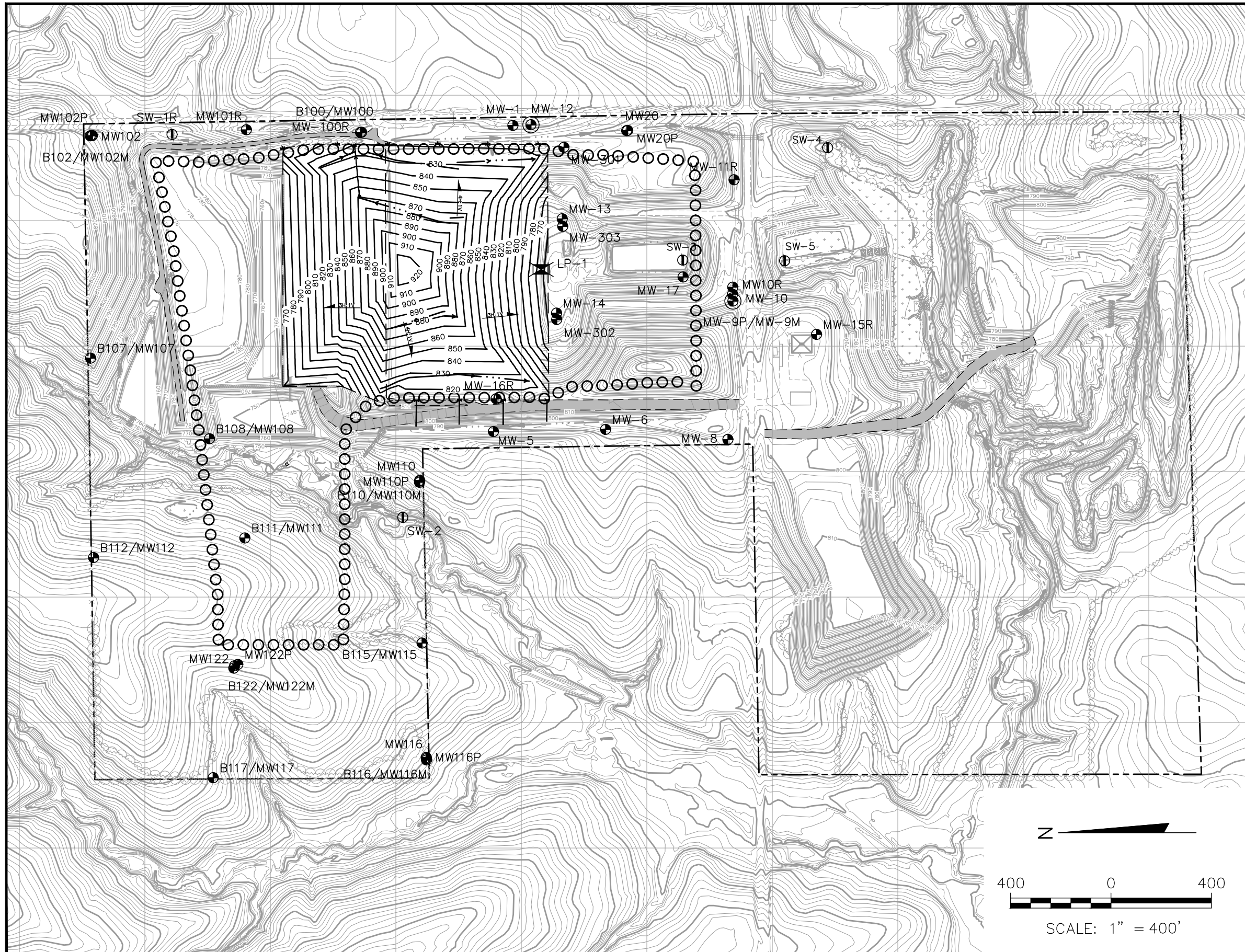
- 1 Site Location Map
- 2 Site Plan



OTTUMWA NORTH QUADRANGLE
 IOWA-WAPELLO CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 SW/4 OTTUMWA NORTH 15' QUADRANGLE
 1976
 SCALE: 1" = 2,000'

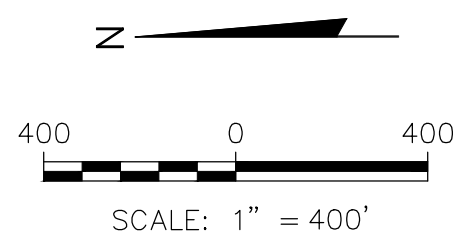


CLIENT	INTERSTATE POWER AND LIGHT CO. 15300 130th STREET OTTUMWA, IA 52501		SITE	POST-CLOSURE CARE PLAN OTTUMWA MIDLAND LANDFILL OTTUMWA, IOWA		ENGINEER	SITE LOCATION MAP	
	PROJECT NO.	25216110		DRAWN BY:	KP		 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	FIGURE
DRAWN:	09/15/11	CHECKED BY:	JO	1				
REVISED:	08/23/16	APPROVED BY:	EN 09/28/16					



LEGEND	
	APPROXIMATE PROPERTY LINE
	LIMITS OF WASTE
	PHASE LIMITS
	EXISTING GROUND SURFACE (10' CONTOUR)
	EXISTING GROUND SURFACE (2' CONTOUR)
	EXISTING DITCH
	EXISTING STREAM
	EXISTING CULVERT
	EXISTING FENCE
	EXISTING WETLAND
	EXISTING RIPRAP
	PROPOSED FINAL GRADES (10' CONTOUR)
	ACCESS ROAD
	MW20 MONITORING WELL
	PROPOSED FINAL COVER DIVERSION BERM
	PROPOSED DOWNSLOPE FLUME
	PROPOSED ENERGY DISSIPATOR
	PROPOSED TOE DRAIN AND DISCHARGE PIPE

- NOTES
1. TOPOGRAPHIC BASE MAP WAS COMPILED FROM IOWA DEPARTMENT OF NATURAL RESOURCES GENERALIZED TWO FOOT CONTOURS OF WAPELLO COUNTY IOWA DERIVED FROM LIDAR DATA. THE LIDAR DATA WAS ACQUIRED IN THE SPRING OF 2008. THE CONTOUR DATA WAS FIELD VERIFIED BY GLOBAL POSITIONING SURVEY (GPS) IN THE SPRING OF 2012. CONTOUR DATA WITHIN THE LIMITS OF PHASE 1 EXPANSION CONSTRUCTION ACTIVITIES IS BASED ON THE NOVEMBER 2015 CONSTRUCTION DOCUMENTATION REPORT BY SCS ENGINEERS. CONTOUR INTERVAL IS 2 FOOT.
 2. TOPOGRAPHIC BASE MAP WITHIN THE EXISTING LANDFILL IS SUPPLEMENTED WITH SURVEYS PERFORMED BY FRENCH-RENEKER ASSOCIATES, INC., FAIRFIELD, IOWA. DATES OF GROUND SURVEYS ARE FEBRUARY 22, 2011, AND JANUARY 22, 2013.
 3. ELEVATIONS ARE BASED ON NAVD 88 DATUM.
 4. THE GRID SYSTEM IS BASED ON THE IOWA STATE PLANE COORDINATE SYSTEM NAD 83 (2007 ADJUSTMENT) AS DERIVED FROM NATIONAL GEODETIC SYSTEM (NGS) CONTROL MONUMENT DESIGNATION D 6.
 5. PROPERTY LINE SOUTH OF 130TH STREET FROM SURVEY MAP PREPARED BY GARDEN & ASSOCIATES, OSKALOOSA, IOWA, DATED DECEMBER 20, 1988.
 6. PROPERTY LINE NORTH OF 130TH STREET FROM PLAT OF SURVEY MAP PREPARED BY SCS ENGINEERS, MADISON, WISCONSIN, DATED FEBRUARY 20, 2013.
 7. EXISTING WETLAND LIMITS BASED ON WETLAND DELINEATIONS PERFORMED BY STANTEC CONSULTING SERVICES, INC., ON APRIL 15, 2012 AND OCTOBER 17, 2012.
 8. EXISTING STREAM ALIGNMENT SHOWN IN NORTH EXPANSION AREA IS APPROXIMATE CENTERLINE BASED ON GENERALIZED CONTOURS (EXISTING GRADE). EXISTING STREAM ALIGNMENT AT SOUTH END OF PROPERTY BASED ON SITE OBSERVATIONS BY STANTEC CONSULTING SERVICES, INC. ON OCTOBER 17, 2012.



PROJECT NO. 25216110.00	DRAWN BY: AHB	 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	CLIENT INTERSTATE POWER AND LIGHT COMPANY OTTUMWA MIDLAND LANDFILL 15300 130 TH STREET OTTUMWA, IOWA 52501	SITE POST-CLOSURE CARE PLAN OTTUMWA MIDLAND LANDFILL OTTUMWA, IOWA	FIGURE 2
DRAWN: 08/22/16	CHECKED BY: JMO				
REVISED: 09/08/16	APPROVED BY: EN 09/28/16				